

Final Project:

(Create a group of 2 within 24 hours and send me the name for my approval. In the report, mention which part conducted by whom. You may tell both of you contribute equally.)

We want to evaluate climates across the US. We require to collect climate data, e.g., Precipitation, Air Temperature, and wind speed.

Collect data for all weather stations assigned state/states for last 10 years (July 2013 – July 2023).

Do the following analysis:

- a. Conduct a detailed exploratory analysis of the datasets.
- b. Test whether the climate during October-March is different from climate April- September.
- c. Apply K-means clustering algorithm to find groups among weather stations. Show the clustering results based on a heat map.

Finally, make a report and present your results in the class (10-minute presentation).

Presentation days:

1. April 22, 2024
2. April 24, 2024

Climate Data:

https://www.ncdc.noaa.gov/cdo-web/search?datasetid=PRECIP_HLY#

<https://www.ncdc.noaa.gov/cdo-web/customoptions>